

In the Claims

1. (withdrawn) A microchannel plate comprising:

a plurality of laminated layers, each of said laminated layers having a plurality of channels formed therein,

wherein the block is sliced to a specified plate thickness.
2. (withdrawn) The microchannel plate of claim 1, wherein said channels are tapered at said desired plate thickness.
3. (withdrawn) The microchannel plate of claim 1, wherein said channels are tapered so that a funneling effect is attained.
4. (withdrawn) The microchannel plate of claim 1, wherein said channels are buried.
5. (withdrawn) The microchannel plate of claim 1 wherein said channels are diamond shaped.
6. (withdrawn) The microchannel plate of claim 1 wherein said channels are U-shaped in cross-section.
7. (withdrawn) A method of manufacturing a microchannel plate structure on a substrate, said method comprising the steps of:

selectively bonding a first layer to said substrate;

forming channels in said first layer;

attaching a handle to said first layer; and

cleaving said substrate.

8. (withdrawn) The method of claim 7, further comprising the steps of:
repeating the steps for a second layer.
9. (withdrawn) The method of claim 8 further comprising the steps of:
bonding said first layer to said second layer.
10. (withdrawn) The method of claim 9, further comprising the step of:
slicing said bonded structure in the direction of the cross section of the channels.
11. (withdrawn) The method of claim 10, further comprising the step of:
slicing said bonded structure in the direction of the cross section of the channels.
12. (withdrawn) A method of manufacturing a microchannel plate structure, said method comprising the steps of:
providing a substrate;
selectively creating strong bond regions and weak bond regions on said substrate;
providing a first bonded layer and a substrate layer;
forming channels in said first layer;
attaching a handle to said first layer;
cleaving said substrate;
repeating said forming, attaching and cleaving steps for a second layer; and
bonding said first layer to said second layer.
13. (withdrawn) The method of claim 12 wherein said substrate is a multi layer substrate.

14. (withdrawn) The method of claim 13, further comprising the step of:

slicing the bonded structure in the direction of the cross section of the channels.

15. (Currently Amended) A Biochip array device comprising:

a CCD array;

a phosphor screen supported by said CCD array;

a ~~microchannel~~ microchannel plate supported by said phosphor screen;

a photocathode supported by said microchannel plate; and

a biochip array ~~n-array of biochips~~ supported by said photocathode.

16. (Currently Amended) The Biochip array device of claim 15 wherein said microchannel plate is aligned with said array of biochips.

17. (Currently Amended) The Biochip array device of claim 15 wherein said microchannel plate has sub micron spacing.

18. (Currently Amended) The Biochip array device of claim 15 wherein detection of ~~fluorescent~~ fluorescent signals at the CCD array is accomplished in parallel.